Snohor	nish Basin Near-Te	erm Actions (NTAs) for the 2018-2022 Action Agenda						
NTA ID	NTA Title	INTA Description	Owner Organization	Sno-Stilly Alignment	Gap (Y/N)	Regiona	l Priority	Approach
Habitat aı	nd Chinook							
2018-0115	Olaf Strad Channel Relocation Design	The NTA will produce designs for the relocation of Olaf-Strad Creek, part of the Quilceda Creek system, away from the road to create spawning and rearing habitat, improve water quality, and create a native riparian buffer for the creek. To do this, Adopt a Stream Foundation and Chinook Engineering will collaboratively conduct a site assessment. The information gathered in this assessment will be used to create determine where the new stream bed will be located in the site, the techniques that will be used to place it there, and how to do so with a minimum of impact water quality.	Adopt a Stream	SSLIO 10.1 and 10.2 Restoration	N-other work funded	CHIN7.1		
2018-0162	Upper Snoqualmie River Riparian Restoration and Stewardship	This project addresses fundamental processes that are degrading water and habitat quality in the headwaters of the Snoqualmie River. There is significant displacement of native vegetation by invasive weeds (particularly invasive knotweeds and butterfly bush) in the Snoqualmie watershed. This affects water and habitat quality through displacement of native riparian buffer vegetation. Resulting losses in shade, erosion control and buffering potential of riparian corridors adversely impacts water quality as reflected by TMDL reports. This project will restore and maintain healthy riparian ecosystem functioning through a comprehensive replacement of invasive weeds with native vegetation, both planted and through natural regeneration. Benefits include reduced water temperature by increasing shade, improved water quality through enhanced functioning of riparian buffers, enhanced native plant communities, and improved long-term community stewardship capacity for these riparian environments.	King County	SSLIO 10.1 and 10.2 Education and Outreach	N-other work funded	CHIN 7.1	CHIN 2.5	FP 3.1
2018-0229	Simulate Summer Streamflows in Response to Groundwater Pumping and Land-Use Change	Summer streamflows are sustained by groundwater input. A hydrologic-flow model will be constructed to simulate the interaction of groundwater and surface water and inform water-management decisions. This model will have a streamflow-routing component that interacts with a subsurface groundwater component, but the focus will be on streamflow simulation, with minimal complexity for the groundwater component. Groundwater pumping wells will be simulated to quantify their effects on streamflow. Groundwater recharge will be simulated with a soil-water-balance (SWB) model that will be used to simulate increased impervious areas (urbanization), resulting in a reduction of groundwater recharge and summer streamflow. Climate scenarios also will be simulated. By simulating an ensemble of scenarios with pumping wells, urbanization, and climate, WRIAs will be evaluated spatially in terms of locations where these anthropogenic factors would have the greatest and least effect on summer streamflow.	USGS	SSLIO 09.1 Stream Flow Protection	Y-New project	CHIN 1.2	CHIN 4.10	CHIN 2.1
2018-0248	Skykomish River Riparian Restoration and Stewardship	This project addresses fundamental processes that are degrading water and habitat quality in the south-fork Skykomish River. There has been significant displacement of native vegetation by invasive weeds (particularly invasive knotweeds and butterfly bush) in the Skykomish watershed. This affects water and habitat quality through displacement of native riparian buffer vegetation. Resulting losses in shade, erosion control and buffering potential of riparian corridors adversely impacts water quality as reflected by TMDL reports. This project will restore and maintain healthy riparian ecosystem functioning through a comprehensive replacement of invasive weeds with native vegetation, both planted and through natural regeneration. Benefits include reduced water temperature by increasing shade, improved water quality through enhanced functioning of riparian buffers, enhanced native plant communities, and improved long-term community stewardship capacity for these riparian environments.	King County	SSLIO 02.1 & 06.1 & 08.1 & 10.1/10.2	Y-New project	CHIN 2.5	CHIN 7.1	FP 3.1
2018-0269	Snoqualmie River Temperature Study Carnation Reach	By employing different methods for both temperature monitoring (thermistors, thermal profiles, fiber-optic distributed temperature sensor, infrared camera) and ground water monitoring (discharge, stable isotope measurements) this study would help identify areas of cooler water in the Snoqualmie River, Carnation reach. Collecting this information will help identify where salmonids may be seeking thermal refugia during hotter, low flow summer months. This work will inform the creation of salmon recovery strategies and restoration projects with the goal of being resilient to climate change impacts.	King County	SSLIO 06.1 & 09.1	Y-New project	CHIN 2.5	CHIN 2.3	
2018-0271	Tolt River Mouth & Lower Frew Floodplain Reconnection Design/Construction	The Lower Frew project is located on the right bank of the Tolt River between river mile 0.6 to 1.1. The Tolt Mouth project (also known as Tolt River Left Bank Setback) is on the left bank river mile 0 to 0.5. The two projects will remove and set back one mile of levee that will reconnect and restore up to 44 acres of floodplain habitat.  The river is physically and hydrologically disconnected from its floodplain as a result of channel confinement by levees. The project will improve juvenile rearing and adult spawning habitat. The Tolt River supports three ESA-listed fish: Chinook salmon, steelhead, and bull trout. The existing levee is subject to overtopping flow and lateral migration hazards; failure of the levees would subject homes and infrastructure to flood risks.	King County	SSLIO 01.1 & 02.1 & 08.1 & 10.1/10.2	Y-New project	SA 3.3	FP 2.1	FP 3.3

NTA ID	NTA Title	NTA Description		Sno-Stilly Alignment	Gap (Y/N)	Regional	Priority A	Approach
2018-0280	Stream-type Yearling Chinook Study in the Snoqualmie River	This project will help the Snohomish Basin understand the habitat use and spatial distribution of stream-type juvenile Chinook, which could account for up to 30% of returning adults in the Snoqualmie River.  Using randomly selected points for Chinook spawning and rearing areas, a hierarchical structure can be used to determine sample site designations, survey lengths, and habitat measurement specifics.  Sample events among channel types should occur across winter, spring, summer, and fall periods. Across mainstem sample reaches, juvenile salmonids should be collected along edge habitat using an electrofishing cataraft during evening and night periods.  Sample events in tributaries will use an backpack electrofisher. Identifying the habitat types used by a unique Chinook life history type can help adjust habitat restoration and protection strategies and improve monitoring to support this Chinook and this unique life-history type.	King County	SSLIO 10.1/10.2	Y-New project	CHIN 4.1		
2018-0296	Barfuse/Hafner Floodplain Reconnection Design and Construction	The two adjacent floodplain reconnection projects are located along the lower Snoqualmie River at rivermile 34.5. The Barfuse project will remove and set back 2000 feet of levee which will reconnect and restore up to 45 acres of floodplain habitat. The Hafner project will remove and set back 1000 feet of levee which will reconnect and restore up to 55 acres of floodplain habitat. The river is physically and hydrologically disconnected from its floodplain as a result of channel confinement by levees on both sides of the river. The projects will improve juvenile rearing and adult spawning habitat for three ESA-listed fish: Chinook salmon, steelhead, and bull trout. The existing levees protect adjacent farmland, homes and Neal Road.	King County	SSLIO 01.1 & 02.1 & 08.1 & 10.1/10.2	Y-New project	FP 2.1	FP 3.3	SA 3.3
2018-0304	Comprehensive Fish Passage Assessment of 4 high priority subbasins	WDFW has incomplete fish passage data in King County. We believe WDFW's current estimate of the number of fish passage structures within KC is well below the actual number. This effort would undertake comprehensive surveys of 4 stream systems using WDFW's fish passage assessment protocols to document all fish passage structures and their condition, irrespective of owner. Based on discussions with salmon recovery interests, initial suggested creek systems are: Griffin Creek in WRIA 7, Bear Creek in WRIA 8, Soos Creek in WRIA 9 and Fisher Creek on Vashon Island.  This work will require extensive outreach to private landowners to get permission to access properties along the stream corridors. The county will collaborate with other entities (e.g. WFC, Sound Salmon Solutions, and Mid-Sound Fisheries) to maximize the ability to gain access to properties that may not want a government agency on their property.	King County	SSLIO 10.2	N-other work funded	CHIN 4.3	FP 1.1	LDC 1.1
2018-0338	Snohomish Basin Floodplain Acquisition Strategy	The goal of the Snohomish Basin Floodplain Acquisition Strategy is to create a corridor of protected lands along the Snohomish River and its major tributaries, where riverine processes are allowed to function naturally. This will accelerate project implementation as outlined in the Snohomish River Basin Salmon Conservation Plan, while protecting the floodplain from development. The creation of a protected floodplain corridor will also ameliorate flood risks, increasing human safety and reducing flood damage claims.  The strategy will include a GIS tool to prioritize floodplain areas for conservation or restoration. The active floodplain will be divided into floodplain units (FPUs). These FPUs will be ranked for conservation and restoration values, and individual parcels will be ranked based on adjacency to other protected parcels. The strategy will act as a tool for watershed stakeholders to prioritize acquisitions with limited funds.	Tulalip Tribes	SSLIO 02.1 & 10.1/10.2	Y-New project	CHIN 1.8	FP 2.1	LDC 2.1
2018-0396	Upper Frew Levee Setback Feasibility and Design	Conduct feasibility and design to remove and setback 2,500 feet of existing levee on the right bank levee on the Tolt River between river miles 1.1 and 1.6. The project will reconnect up to 23 acres of historic floodplain to create rearing and refuge habitat for juvenile salmon.	King County	SSLIO 01.1 & 02.1 & 08.1 & 10.1/10.2	N-other work funded	FP 3.3	SA 3.3	FP 2.1
2018-0397	Pilchuck River Dam Removal Restoration Project	The final objective of this restoration project is full removal of the City of Snohomish Diversion Dam on the Pilchuck River to restore unimpeded fish access to over 37 miles of high quality priority habitat for listed fish species. This dam has consistently been an impediment to upstream fish migration for chinook, steelhead, bull trout, coho, chum, pink, cutthroat, and other species. The City of Snohomish has committed to the cessation of water withdrawals at this location, allowing full dam removal. A current effort is underway for planning and design to expand analyses, generate final designs, permitting, and community outreach that will allow dam removal to be "shovel ready." This NTA is for final implementation of full dam removal including the removal of all dam infrastructure (spillway, fish ladder, and water intake facility) following the completion of the current planning/design effort.	Tulalip Tribes	SSLIO 02.1 & 08.1 & 10.1/10.2	N-other work funded	CHIN 7.1	LDC 3.3	FP 3.3

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2018-0400	Coho Creek Relocation and Enhancement Project	Tulalip Tribes propose to relocate and restore stream habitat conditions along approximately 650 feet of Coho Creek (WRIA #07-0048), a type 3 tributary to Quilceda Creek, on the Tulalip Reservation. In 1999, a culvert that blocked fish passage, just below the project area was replaced, improving fish access to over 2 miles of ditch and stream channels. Enhancing ditched sections of the stream system has a potential to measurably increase Coho and Chum salmon production. Since 2001, 2,500 feet of Coho Creek has been restored resulting in increased spawning and rearing production. Coho and Chum salmon spawning has averaged 39 and 167 fish annually. With this project, we hope to add on to those gains. We propose to re-evaluate old designs, construct 650 feet of new stream channel, and replant approximately 1.5 acres of riparian area. The project area will be included in our annual Coho Creek maintenance and monitoring efforts to track results and needed modifications to ensure success.		SSLIO 10.1/10.2	Y-New project	CHIN 7.1		
2018-0406	Snohomish Basin Floodplain Acquisitions	Floodplain property will be acquired as prioritized in the Snohomish Basin Floodplain Acquisition Strategy with a goal to create a corridor of protected lands along the Snohomish River and its major tributaries, where riverine processes are allowed to function naturally. This will accelerate project implementation as outlined in the Snohomish River Basin Salmon Conservation Plan, while protecting the floodplain from development. The creation of a protected floodplain corridor will also ameliorate flood risks, increasing human safety and reducing flood damage claims. As opportunities for property acquisition within the active floodplain arise, they will be prioritized per the acquisition strategy and funded in order of priority if funds are limited.	Tulalip Tribes	SSLIO 01.1 & 08.1 & 10.1/10.2	Y-New project	CHIN 7.1	FP 3.2	LDC 3.3
2018-0425	City of Snohomish Pilchuck River Property Acquisition	This project includes the acquisition of a 25 acre property adjacent to the Pilchuck river and an associated off-channel wetland complex. The property was formerly used by the City for water withdrawals utilizing the Pilchuck River diversion dam. This dam is in the process of being removed, and the City is using alternative water sources and therefore has no current use for the subject property. Acquisition of the largely forested parcel will protect the property from degradation associated with future development, and will protect habitat currently being restored through dam removal for listed species including chinook, steelhead, bull trout, and other salmonids.		SSLIO 01.1 & 08.1 & 10.1/10.2	Y-New project	FP 3.2	CHIN 7.1	LDC 3.3
2018-0455	Snohomish Watershed Capacity Building for Managing and Implementing Stormwater Pollution Reduction Community- based Programs	Stormwater pollution is contributing to the listing of multiple Snohomish / Snoqualmie Watershed water bodies on the 303d list and affecting Chinook populations. We will achieve the project objective by 1) assessing and refining regionally identified priority stormwater best management practices for local relevance in the target watershed; 2) replicating a smaller version of the Puyallup Watershed Initiative, focused specifically on stormwater pollution, which will generate greater collaboration, engagement, coverage and local community relevance in stormwater pollution reduction actions; 3) providing formal training on education, communication and outreach techniques, as well as stormwater issues, research and prevention strategies, to increase professional skills; and, 4) familiarizing and involving local watersheds organizations with the regional Puget Sound Starts Here media campaign and tools by facilitating their immediate use in local stormwater-themed events and activities.	WSU Extension	SSLIO 03.1 & 04.1 & 05.1 & 06.1	Y-New project	FUND 1.1	CHIN 2.5	BIBI 1.1
2018-0509	Measurement of Pharmaceuticals, Personal Care Products, and Perfluoroalkyl Substances in Budd Inlet and Port Gardner Bay sediments	Sediments will be collected from Budd Inlet and Port Gardner/Everett Harbor for the Dept of Ecology's Puget Sound Sediment Monitoring Program, part of the Puget Sound Ecosystem Monitoring Program. Samples will be sent to an appropriate analytical laboratory for quantification of a broad suite of PPCPs and PFASs. A set of baseline data will be established, and they will be comparable to those collected in sediments in four other major urban bays and ten long-term stations in Puget Sound. All data will be reviewed for appropriate quality assurance and quality control, summarized, and electronically archived. Comparisons of detected values will be made with those found in Puget Sound fish and invertebrates in other studies. A report will be produced.	Dept. of Ecology	SSLIO 05.1	Y-New project	CHIN 4.8		
2018-0517	Pilchuck River Armoring Removal	This project will remove approximately 1,500 feet of rip rap bank armoring that was installed to protect the City of Snohomish water transmission main running from the Pilchuck River Diversion Dam and associated water treatment facility. This water main is no longer in use, and the Pilchuck Dam is in the process of removal. Therefore, this substantial amount of armoring is no longer necessary to protect the transmission main, and the adjacent riparian zone is mature forest and off-channel wetland habitat. Removal of this armoring will allow restoration of natural riverine processes and habitat diversity/enhancement.  The majority of the bank armoring was installed following large storm events in 2006 and 2009 that exposed the transmission main to the river. This resulted in channel constriction and bank simplification that has diminished habitat quality in the vicinity. Bank armoring removal will benefit chinook, steelhead, bull trout and other salmonids.	Tulalip Tribes	SSLIO 02.1 & 08.1 & 10.1/10.2	Y-New project	FP 3.3	CHIN 7.1	LDC 3.3

NTA ID	NTA Title	INTATION		Sno-Stilly Alignment	Gap (Y/N)	Regiona	l Priority <i>i</i>	Approach
2018-0541	Spencer Island Estuary Restoration	The project is located on a 330+ acre property, with the north end managed by WDFW and south end managed by Snohomish County Parks. The property is historic intertidal marsh with a perimeter levee partially restricting tidal processes on the site. There have been at least two previous restoration projects, and two events that naturally breached the levee on the property. This project would involve evaluating the need, and then potentially designing and constructing a project to more fully connect the site with surrounding delta. This project is one of thirty-six projects in Puget Sound with conceptual designs developed as part of the Puget Sound Nearshore Ecosystem Restoration Project.	WDFW	SSLIO 10.1/10.2	N-other work funded	EST 3.3	EST 3.4	
2018-0557	Ebey Island Land Management and Land Use Coordination Plan	WDFW currently owns 1,237 acres on Ebey Island in the Snohomish River delta. In 2009, an estuary restoration feasibility study concluded that a larger footprint of land would need to be secured to make a large estuary project cost effective because of the length of setback dike that would need to be constructed to protect private properties. Approximately 800 acres of the land that WDFW currently owns is only accessible to the public by boat. The planning process proposed here will document existing regulatory, environmental, and social conditions and propose a framework of management strategies, infrastructure improvements, and land use strategies to meet goals for the site. The plan will be developed with input from a stakeholder process and may include recreation elements and a long-term acquisition/estuary restoration vision.	I\\\/I)\=\\\/	SSLIO 02.1 & 10.1/10.2	N-other work funded	EST 2.1		
2018-0562	Skykomish River and Haskel Slough Riparian Acquisitions (Reiner)	This project involves the acquisition and protection of over 100 acres of riverfront and slough adjacent property. The Reiner Farm property outside of the City of Monroe is currently being purchased by PCC Land Trust for the conservation of farmland and protection from development. Much of the property will remain tillable farmland with a pending conservation easement, and will eventually be sold to a farmer for long term land stewardship. The remainder of the property is adjacent to the Skykomish River and Haskel Slough, and is largely forested through previous enhancement and riparian protection efforts. PCC Land Trust currently plans to conduct boundary line adjustments through a collaborative process that capture these riparian areas with high conservation/enhancement values. These properties will then be sold to a long term land steward for the protection and enhancement of riparian conditions in perpetuity.	Tulalip Tribes	SSLIO 01.1 & 08.1 & 10.1/10.2	Y-New project	FP 3.2	CHIN 7.1	LDC 3.3
2018-0584	Snohomish Estuary Derelict Vessel Removal	The Snohomish River estuary currently has over 100 vessels docked at unlicensed, unpermitted marinas without water, sewer, garbage removal or safe electricity. County Staff and State Agencies have frequently observed and documented oil and sewage spills at these marinas. Debris from sunken or abandoned docks and vessels litter the shoreline, physically block habitat, create navigation hazards, and release a variety of toxic chemicals. This project received \$50,000 of local LIO funds to start the process of removing several boats from the Snohomish Estuary. Snohomish County will continue to implement this program by utilizing RCW 79.100 and work with the Washington Department of Natural Resources.	Snohomish County	SSLIO 10.1/10.2	N-continuation	EST 3.3		
2018-0586	Burri Creek Tidal Channel Fish Passage Enhancement	This project includes the installation of a self regulating tide gate or other fish passage structure that will enhance fish passage to Burri Creek and its associated relic tidal channel. The subject tidal channel is located on a property currently owned by the Lake Stevens Sewer District, which was the location of a prior sewage treatment plant. The sewer district has constructed a new treatment facility outside of the floodplain, and is planning to transfer ownership of this property to another entity for community benefit and environmental stewardship. One of the primary short term enhancement opportunities on the property is increasing fish passage to this relatively intact tidal channel and Burri Creek.  It is expected that a fish passage tide gate structure can be installed that will maintain or improve drainage for existing adjacent agriculture while improving water exchange and quality. Primary species benefiting form this project include chinook and other	Tulalip Tribes	SSLIO 10.1/10.2	Y-New project	FP 3.3	CHIN 7.1	EST 3.3
2018-0589	Snohomish Estuary Creosote Piling Removal Planning	Snohomish County has created maps which documents the hundreds of creosote pilings in the Snohomish River Estuary. Legacy creosote pilings and logs continue to pollute the estuary and add to the list of stressors that wild Chinook salmon face at various points in their life history. The documented creosote pilings are on many different parcels owned by a variety of stakeholders. In this planning phase, Snohomish County Marine Resources Committee will develop a multi-stakeholder forum to discuss the hundreds of function limiting creosote pilings in the Snohomish estuary and develop and communicate a coordinated vision for piling removal.	Snohomish County	SSLIO 02.1 & 10.1/10.2	N-continuation	EST 2.1		
2018-0591	Snohomish Estuary Creosote Piling Removal Implementation	Based on work from Phase 1 "Snohomish Estuary Creosote Piling Removal Planning" NTA ID 2018-0589, the Snohomish County Marine Resources committee will work with stakeholders to identify and prioritize creosote pilings for removal. Prioritized sites will have pilings removed using best management practices. Demonstration projects will be completed on public lands, and private landowners will be engaged throughout the process.	Snohomish County	SSLIO 02.1 & 08.1 & 10.1/10.2	N-continuation	EST 3.3		

NTA ID	NTA Title	NTA Description		Sno-Stilly Alignment	Gap (Y/N)	Regional	Priority A	Approach
2018-0597	A comprehensive survey of salmon habitat in nearshore areas of WRIA7, WRIA8 and WRIA9	Detailed understanding of the spatial distribution of submerged aquatic vegetation is critical for quantifying the effectiveness of regulatory measures for protecting nearshore salmon habitat. The shorelines of King County constitute the most intensively developed critical habitat in Puget Sound, yet detailed information is lacking. We will comprehensively survey eelgrass, kelp and other macroalgae in WRIAs 7, 8, and 9. Results will describe two key vegetation attributes - areal extent and depth distribution - in high quantitative detail. These data will form a baseline for understanding current distribution and assessing change in salmon habitat over time in response to stressors, restoration, and other management actions. This will allow managers to avoid impacts during project review and assess regulatory effectiveness of the Shoreline Master Program. We will disseminate data through an online tool, giving managers easy access to high resolution, spatially explicit information.	II)ent of Natural Recou	SSLIO 02.1 & 10.1/10.2	Y-New project	CHIN 1.1	CHIN 1.9	CHIN 1.3
2018-0599	Farm Plans and CAO Regulatory Flexibility Assessment	During King County's Critical Area Ordinance update process in 2004, the county provided regulatory flexibility to farmers if they get a farm plan from the King Conservation District. The intent was that while the County was giving up certain ecological protections within a specific regulatory area, it would gain more environmentally by having the District engaging with farmers to create individualized plans for how to improve their farms. This flexibility was applied to several regulatory issues like Agricultural Drainage Assistance Program and the Livestock Management Ordinance fencing buffer width requirements. The CAO Best Available Science documented that this flexible approach created high uncertainty about the county's ability to meet a 'no net loss' of ecological functions and values and that it was one of five specific departures from BAS. It also highlighted the need for this approach to be monitored for effectiveness. This has not occurred since the CAO was implemented.	King County	SSLIO 02.1 & 05.1 & 08.1	N-other work funded	CHIN 1.6	CHIN 1.2	ВІВІ 3.1
2018-0601	Outreach to Increase Private Property Stewardship to Support and Protect Salmon Habitat Investments	A social marketing campaign in the Snoqualmie and WRIA 8 Watersheds will aim to increase private property owner support for salmon habitat projects and increase participation in stewardship activities on private lands to complement and help protect investments made to restore salmon habitat. The campaign will engage the public in reducing the invasive "seed rain" spreading from private lands to rivers, lakes and streams by removing invasive plants from their properties and replacing them with native species. The campaign will identify barriers to participation and develop incentives, messages and resources to help property owners overcome those barriers. The project will seek to leverage and coordinate existing and ongoing work by partners, including key local governments and nongovernmental organizations. A key component will be to promote and support community-led, "barn-raising" style projects where neighbors work together to control invasive plants on each other's properties.	King County	SSLIO 02.1 & 04.1	N-other work funded	LDC 3.1	LDC 3.3	
2018-0613	Developing tools for multi-benefit project selection and sequencing in the Snohomish River Basin	Implementation of restoration projects in the mainstem rivers of the Snohomish have been lagging behind other restoration benchmarks (reference upcoming status update spring 2018). One component of this is due to the complex network of land ownership and competing floodplain uses. In the Skagit system there have been extensive efforts underway to further refine the way in which restoration projects are selected by using complex modeling and clear measures of success from multiple communities (see Skagit HDM work).  Work is proposed to further our flood understandings in the Snohomish (developing 2D modeling). Extensive work has been done to develop an agricultural resilience plan as well. This proposed action would begin to bridge these many efforts to develop a list of projects that could be evaluated that minimize impacts to agriculture while maximizing gains for salmon recovery, taking the next steps on project development from the SLS reach scale plans.	Tulalip Tribes	SSLIO 02.1 & 10.1/10.2	Y-New project	EST 2.1	FP 2.1	CHIN 1.1
2018-0614	_	Salmon recovery will not be achieved without continued and ongoing support from key interest groups. To achieve recovery we will need increased access to land, support for funding initiatives, and people who understand how their day to day decisions impact those resources they care about. We believe that we need to further develop the connection to place and the stewardship ethic to achieve our goals. However, outreach and education is largely unfunded under our existing salmon recovery program. This NTA will develop a communication plan, identifying audience, key messages, and communication channels and will implement priorities. The limited outreach that is occurring in the Snohomish River basin is fantastic. But it would benefit from having a larger regional/watershed vision. This vision can help us all utilize the same framework, speak with a unified voice, and identify strategies for multiple entities roles in conducting outreach and education.	Tulalip Tribes	SSLIO 02.1 & 04.1	N-other work funded	CHIN 1.1	LDC 3.1	

NTA ID	NTA Title	NTA Description		Sno-Stilly Alignment	Gap (Y/N)	Regional	Regional Priority App		
2018-0618	Stormwater Assessment, Outreach, and Assistance to Jurisdictions in the Snohomish Basin (WRIA 7)	In coordination with WDFW and NOAA's NW Fisheries Science Center, the project team (King County, the Tulalip Tribes, and others) will conduct fall spawner surveys in prioritized streams near urban lands and roads across the Snohomish basin to determine rates at which adult coho returning to spawn die before spawning due to water pollution (coho urban runoff syndrome, aka pre-spawn mortality (Feist et. al., 2017)). The rates and locations will be used to identify areas for water pollution prevention actions, including stormwater retrofits and green stormwater infrastructure. Results will be shared with stormwater professionals and the public in the jurisdictions where problems are identified, and a suite of assistance will be offered to stormwater managers including grant writing, green stormwater infrastructure design, mapping, or outreach to increase their capacity to install green stormwater infrastructure to address the problem.		SSLIO 04.1 & 05.1 & 06.1	Y-New project	ВІВІ 2.1	LDC 3.4	BIBI 1.1	
2018-0623	Assessing Fluvial Geomorphology, Flood Hazard Risk, and Infrastructure of the Lower Skykomish River Miles 0 to 13	Accurate and recent fluvial geomorphic and hydraulic modeling serves as the basis for the flood hazard mapping. The Snohomish County Hazard Mitigation Plan states that the County's current mapping is inaccurate in many areas. The County has hydraulic modeling work under contract. This NTA will complement that work and seek to address the aforementioned inaccuracies in flood hazard mapping, facilitate incorporation of hazard planning into the next version of the County Comprehensive Flood Control Management Plan, further Puget Sound Action Agenda priorities, support salmon recovery habitat projects, form the technical basis for multi-benefit projects, quantify river processes to plan for climate change impacts, and fill data gaps identified in our Reach-Scale Planning effort. The project scope includes geomorphic assessment, flood hazard mapping, infrastructure assessment of levees and riprap areas, as well as public outreach to stakeholders.	Snohomish County	SSLIO 02.1	N-other work funded	FP 1.1	FP 1.2		
2018-0627	Lower French Creek Fish Passage Improvements	The project involves retrofits and operational changes to the pump station and modifications to the lower 2.5 miles of French Creek. In the first year, existing juvenile fish pumps at the pump station would be replaced with more fish friendly pumps and heavy flap gates would be replaced with a lighter type. Also, the final design and permitting of modifications to the lower 1.2 miles of creek would occur (reach 1 and 2). In the second year, construction of the creek modifications would occur and pump controls would be changed to lower operational levels. Higher velocities and lower residence times are expected. In the third year, monitoring of velocity, water quality, and water levels in adjacent wetlands and agricultural lands would occur. Adaptive management of the creek and pump operations may be needed after the monitoring. In the third/fourth year, design and permitting of the final 1.3 miles of creek channel (reach 3) would occur, with construction in the fourth/fifth year.	Snohomish County	SSLIO 02.1 & 08.1 & 10.2	Y-New project	FP 3.3			
2018-0631	Tulalip Shoreline Assessment for bulkhead removal or soft shore armoring	This NTA will build off an existing report by Coastal Geologic Services, Inc. that mapped the shoreline of the Port Susan Marine Stewardship Area. A portion of the Tulalip shoreline, north of Tulalip Bay, was mapped as a part of that project. This NTA will update that information and include the remaining Tulalip shoreline to the analysis. In addition, we will field verify the mapped shoreline conditions to increase accuracy of the assessment.	I I I I I I I I I I I I I I I I I I I	SSLIO 01.1/01.2 & 10.1/10.2	Y-New project	SA 2.1			
2018-0635	Tulalip Shoreline Landowner Outreach and Education Campaign	Based on the results of the shoreline armor removal assessment for the entire Tulalip shoreline, this NTA will direct outreach and education via targeted mailings and workshops to shoreline areas where armor removal would restore physical processes to benefit the nearshore ecosystem. Permitting and other regulatory incentives to remove hard shore armor will be evaluated. A demonstration project is proposed to show the viability of hard shore removal and the effectiveness soft shore armoring techniques.	Tulalip Tribes	SSLIO 01.1 & 10.1	Y-New project	SA 3.1	SA 3.3		
2018-0690	Enhance Code Enforcement Coordination between Tulalip Tribes and Snohomish County	Due to overlapping jurisdictions, Tulalip Tribes and Snohomish County operate separate land use code enforcement programs within the Tulalip Reservation. These programs could benefit from increased communication and opportunities to share resources, such training, maps, and staff. There are growing problems of homelessness, drug addiction, and development pressure in our region. A backlog of open enforcement cases has grown longer. These problems cause degradation of Tribal waters and destroy fish habitat through unpermitted development and environmental damage. With four county code enforcement officers for all of unincorporated Snohomish County, sharing of staff and other resources is critical to close existing gaps in code enforcement and mitigate further environmental damage. This project will identify common goals, explore creative solutions, and eliminate redundancies, while working within each entity's respective legal and regulatory framework.	Hulalin Tribes	SSLIO 01.1/01.2 & 09.1 & 10.1/10.2	Y-New project	CHIN 2.2	CHIN 2.4		

NTA ID	NTA Title	NTA Description		Sno-Stilly Alignment	Gap (Y/N)	Regiona	Approach	
2018-0693	Big Buffers on Pilchuck River and French Creek	The Pilchuck River and French Creek once supported highly productive populations of salmon and are critical sub-basins for the recovery of salmon populations in the Snohomish River basin. The Big Buffers project continues implementation of a riparian stewardship Action Plan for the Lower and Middle Pilchuck River and French Creek sub-basins that aims to improve water quality and restore and protect high priority riparian lands. Snohomish Conservation District and partners are implementing reach-scale riparian stewardship actions to restore salmon habitat, protect or create cold water inflows, and enhance hydrologic processes. To achieve salmon recovery targets, the Action Plan identifies 151 acres in the Pilchuck River and 187 acres in the French Creek Implementation Areas of needed riparian reforestation. This NTA will fund planting of wide riparian buffers on easement lands and other priority rural and agricultural lands to make progress on achieving riparian reforestation goals.	Snohomish Conservation	SSLIO 06.1	Y-New project	CHIN 7.1	CHIN 2.5	ВІВІ 3.1
2018-0749	Incorporating Climate Change into the Design of Culverts Prioritized for Replacement to Improve Fish Passage in King County	This project will build on a methodology created in 2016 by the Washington Department of Fish and Wildlife (WDFW) and the UW Climate Impacts Group (CIG) to incorporate projected changes in extreme precipitation due to climate change into the design of water crossing structures. The project uses new hourly precipitation data, produced for King County by CIG for the period 1970-2099, to model projected site-specific changes in bankfull width of streams in King County, which is an important determinant of culvert size and the potential for impacts on fish passage. The project will also test and adapt WDFW's "risk-action matrix" for assessing when projected changes in bankfull width are significant enough to warrant considering design changes at a site. The project will focus on culverts prioritized for replacement in partnership with tribes via Executive Dow Constantine's forthcoming Clean Water and Healthy Habitat Initiative and the related Fish Passage Strategy Work Plan.	King County	SSLIO 10.1/10.2	Y-New project	CHIN 5.1	CHIN 5.3	CHIN 7.1
2018-0792	Source Identification of Toxics Impacting Juvenile Chinook Salmon in Three Major Puget Sound Rivers	Approximately 30% of all juvenile Chinook salmon recently sampled by WDFW contained levels of contaminants high enough to induce sublethal effects, potentially affecting their marine survival. The implication of these findings is that juvenile Chinook are accumulating sublethal amounts of toxics from urbanized and developing watersheds that have undergone habitat restoration efforts, but continue to receive stormwater and wastewater containing toxic chemicals.  We will resolve sources and pathways of chemicals by measuring polychlorinated biphenyls (PCBs) and polybrominated biphenyl ethers (PBDEs) from water (using passive samplers), sediments, and resident biota (e.g., periphyton and invertebrates). The sampling design will rely on tried-methods to help pinpoint the geographic source of contaminants. Identification of contaminant sources along the salmon's migratory pathway is information necessary to remediate toxic effects on the early marine survival of juvenile Chinook salmon.	Dept. of Ecology	SSLIO 04.1 & 05.1 & 06.1	Y-New project	TIF 1.1	CHIN 4.2	
2018-0799	Snohomish Confluence Project	Tulalip Tribes and partners propose to restore and enhance floodplain connection, abandon side channels and connections to Riley Slough at and just upstream of the junction of the Skykomish and Snoqualmie rivers that we describe as the Snohomish Confluence Project. These actions have the potential to measurably increase rearing and spawning habitats for Chinook, Steelhead, Coho, Pink and Chum salmon. Bank protection upstream and adjacent to the project area has redirected flows in the Skykomish River, which has contributed to abandonment of side channels, and altering the lower end of Riley Slough. Over the last 25 years dramatic reductions in Coho spawning has been observed in Riley Slough tributaries. With this proposal, we are requesting funds for project planning and property acquisition. Project partners include the property owner where the floodplain connection and side channel enhance would take place, Snohomish County, and Ducks Unlimited.	Hulalin Trihes	SSLIO 01.1 & 08.1 & 10.1/10.2	Y-New project	CHIN 7.1	FP 3.2	
2018-0816	Administration of Snohomish County Transfer of Development Rights Bank	Market based transactions are an important tool for incentivizing smart growth while protecting open space and working lands. Local governments around the region recognize the importance of market based conservation strategies such as transfer of development rights (TDR). This NTA identifies and describes the need to support specific components essential to the implementation of TDR in WRIA 7 and the regional marketplace. Effective utilization of TDR as a regional conservation tool is a complex undertaking. A bank will add capacity to protection efforts by creating an institution to facilitate conservation transactions. King and Pierce Counties have both used TDR banks effectively to support a TDR market. This NTA will support administrative costs associated with a TDR bank to expand landowner participation and provide transactional support.	Forterra	SSLIO 02.1 & 04.1 & 08.1	Y-New project	LDC 3.3	LDC 3.1	LDC 2.2
2018-0867	Outreach for Clean Water and Healthy Habitat	Conduct surveys to determine demographically-based beliefs about clean water and healthy habitat. Using social marketing techniques, develop and implement a public outreach campaign to increase awareness of and involvement in efforts to clean up runoff and restore salmon habitat in the Snoqualmie basin, consistent with the goals of the Snohomish Basin Salmon Conservation Plan.		SSLIO 02.1 & 04.1	N-other work funded	LDC 3.1	LDC 3.3	

NTA ID	NTA Title	NTA Description	Owner Organization	Sno-Stilly Alignment	Gap (Y/N)	Regiona	l Priority <i>i</i>	Approach
2018-0871	Farm Fish Flood: Snoqualmie Valley Agriculture Strategic Plan Task Force	As a key action item in the Farm, Fish, Flood Agreement, an agricultural strategic plan must occur. This type of plan is specified in three NTAs. The SVAPD Strategic Plan will provide data and analysis; contain specific proposals for projects, funding strategies, and a timeline for implementation needed for equitable negotiation and problem-solving in current and future multi-objective planning processes like the ongoing FFF process.	King County	SSLIO 02.1	N-other work funded	FP 1.2	FP 2.1	
2018-0888	Adapting salmon recovery strategies and goals in the Snohomish Basin	Approved in 2005, the Snohomish River Basin Salmon Conservation Plan provides a robust multi-salmonid recovery strategy and includes quantitative 10-year habitat restoration targets. Since the Plans inception, new science has emerged in the areas of nearshore habitat, water quality and climate change. This NTA will incorporate new science and studies into salmon recovery strategies, specifically focusing on nearshore, water quality and climate change.  The NTA will also incorporate knowledge gained from recent habitat status and trends reporting, an evaluation of implementation progress and estuary monitoring data to update 10-year habitat restoration targets and identify key actions to achieve the targets.  Work for this NTA will be supported by the Snohomish Basin Salmon Recovery Technical Committee and the Estuary Work Group.	Snohomish County	SSLIO 01.1/01.2 & 10.1/10.2	N-other work funded	CHIN 8.1		
2018-0913	Replicate of 2008-2012 Analysis of King County Critical Areas Ordinances and Land Use Effectiveness.	The project will replicate the study: Assessing land use effects and regulatory effectiveness on streams in rural watersheds of King County, Washington (2014). The replicate study period will occur approximately 10 years after the original study and utilize the same treatment and control watersheds. Sufficient statistical power is expected to describe meaningful biological, chemical, and physical changes between the original and replicate study periods. Any meaningful changes will attempt to be correlated with critical area ordinance implementation or land use actions in order to support future adaptive land management. Furthermore, the product will enhance the original study by comparing 1) fish biomass, richness, and diversity and 2) stormwater concentration, networking, and maintenance effectiveness. King County staff will perform all aspects of the project implementation.	King County	SSLIO 02.1 & 08.1 & 10.1/10.2	Y-New project	LDC 1.2	CHIN 1.2	CHIN 1.7
2018-0919	to Support the Generation of	After migration to high-resolution hydrography spatial data, in coordination with Washington Department of Ecology, King County will employ 1) existing non-random fish distribution data and 2) the results of eDNA bar-coding technology in data gap areas to populate stream networks with both verified and modeled fish species presence. King County is expected to collaborate with Washington Department of Fish and Wildlife or US Geologic Survey specialists to obtain the eDNA bar-coding results. King County staff are expected to performed the data processing required to deploy the high-resolution fish distribution data to land management and public end users.	King County	SSLIO 02.1	N-other work funded	CHIN 4.11	CHIN 1.3	
2018-0922	Expected Ranges of Woody Debris Frequency and Volume for Stream Habitat Restoration in King County and Surrounding Area Lowlands.	Currently available data portraying expected in-stream woody debris loading rates in western Washington is not necessarily representative of conditions (historic habitat types and geomorphology) of small- to mid-sized streams in unincorporated King County and surrounding areas. Furthermore, the blanket application of currently available data and associated recommendations could jeopardize the effectiveness and success of future stream-habitat restoration projects by King County and other land management partners. King County would administer the contracting of a consulting specialist to obtain the data and perform the new analysis.	King County	SSLIO 02.1	N-other work funded	CHIN 4.11	FP 1.1	FP 3.4
2018-0964	Salmon Habitat Protection and Restoration - Phase I: Methods and Tools	Phase I of a multi-phase NTA to harmonize regulations and recovery actions in support of salmon habitat in the Snohomish Basin includes the following key tasks:  1) identify a subset of landscape/reach scale attributes and measurable indicators of salmon habitat and other co-benefits that link to existing regulations;  2) develop and test a regionally applicable decision support system to evaluate protection, conservation or restoration actions and trends against indicators identified in Task 1;  3) identify harmonization and regulatory streamlining opportunities within the authorities of participating agencies;  4) cooperate with partner agencies and local governments to identify needs and opportunities for evaluation of multiple scenarios/pathways, trade-offs and consequences of decisions for policy direction and resource allocation; and  5) develop criteria for and identify potential pilot projects for application of the harmonization tool in Phase II.	Tulalip Tribes	SSLIO 02.1 & 08.1	Y-New project	CHIN 1.1	CHIN 1.2	CHIN 1.4

NTA ID	NTA Title	NTA Description		Sno-Stilly Alignment	Gap (Y/N)	Regional	Priority A	Approach
2018-0966		Phase II of a multi-phase NTA to harmonize regulations and recovery actions in support of salmon habitat in the Snohomish Basin includes working with local government partners and regulatory agencies to complete the following tasks:  1) identify all major changes that effect salmon recovery in the one to two study areas in the Snohomish Basin identified in Phase I;  2) leverage, refine and expand upon landscape/reach scale attributes and measurable indicators of salmon habitat and other cobenefits that link to existing regulations;  3) gather data and collaboratively model effects for key actions in the study areas;  4) integrate third party process modeling systems such as VELMA;  5) apply the decision support tool to evaluate the effects (both individual and collective) of current and proposed actions and trends;  6) recommend harmonized and voluntary streamlined permitting to create efficiencies and cost savings for the public, governments and to meet multi-benefit planning goals.	Tulalip Tribes	SSLIO 02.1 & 08.1	Y-New project	CHIN 1.1	CHIN 1.2	CHIN 1.4
2018-0968	IOWNERS OF PRIORITY KING ( OLIPTY	PBRS and CUT can provide both short-term protection (high-risk properties until permanent protection funding is secured) and long-term protection (low-risk properties may only need PBRS/CUT to ensure protection from conversion). Parcels are currently enrolled into PBRS or CUT at the request of landowners. If we are going to take advantage of the incentives afforded landowners and focus program resources on LCI priorities, we will need to develop a prioritization program and increase staff capacity for a targeted outreach program.	IKing (County	SSLIO 01.1 & 02.1 & 04.1 & 08.1 & 10.1	N-other work funded	LDC 3.1	LDC 3.2	
2018-0970	Forest Management for Water Quantity, Water Quality, and Climate Preparedness	Review the literature, case studies and models that address the linkage between forest stand age, soil moisture, and hydrologic flows during peak flood events and during summer low flows. Identify upland/forest management opportunities in the Snohomish Basin to address current and projected future changes in hydrology as they affect salmon populations as well as co-benefits of hazard reduction from floods and wildfire. Identify potential partners, funding mechanisms (including markets for ecosystem services) and other needs and considerations to implement upland/forest management for hydrologic benefits to salmon.	Tulalip Tribes	SSLIO 09.1	Y-New project	CHIN 2.2		
2018-0971	Farm and forest plan implementation and barriers to adopting best management practices.	WLR staff have worked with KCD, WSU Extension and others to assist private landowners with development and approval of over 1,000 farm and forest plans in King County. Those plans often provide landowners with some regulatory relief in return for the anticipated management actions. The goal of most plans is to restore or enhance land cover condition, which often has a direct nexus to water quality. We propose to reach out to a subset of landowners with approved management plans to assess the rate of implementation of recommended actions and barriers to full implementation. Data collected will help us develop a long-term outreach program to ensure greater plan implementation and increase the likelihood of achieving the desired water quality and habitat benefits	King County	SSLIO 02.1 & 08.1 & 10.1/10.2	Y-New project	CHIN 1.2	CHIN 1.6	LDC 2.1
2018-0972	Implementation of the top recommendations generated by the Snoqualmie Valley Fish Farm Flood advisory committee	FFF 1.0 generated a suite of recommendations that addressed the immediate needs of each caucus group (fish, farm and flood stakeholders). To ensure that there was equitable progress on both the fish and farm priorities, two key recommendations were bundled and there was a commitment to move immediately forward on each recommendation. The two bundled recommendations were 1) accelerating the pace of implementation of large capital habitat restoration projects and 2) developing a comprehensive drainage maintenance program that addresses practical, financial and regulatory hurdles faced by farmers. We need to increase staff and financial capacity to adequately address each of those bundled priority recommendations as well as make significant progress on the full suite of identified priorities.	King County	SSLIO 10.1/10.2	Y-New project	CHIN 7.1	LDC 3.3	

## Stormwater

NTA ID	NTA Title	NTA Description		Sno-Stilly Alignment	Gap (Y/N)	Regiona	Priority A	Approach
2018-0455	Snohomish Watershed Capacity Building for Managing and Implementing Stormwater Pollution Reduction Community- based Programs	Stormwater pollution is contributing to the listing of multiple Snohomish / Snoqualmie Watershed water bodies on the 303d list and affecting Chinook populations. We will achieve the project objective by 1) assessing and refining regionally identified priority stormwater best management practices for local relevance in the target watershed; 2) replicating a smaller version of the Puyallup Watershed Initiative, focused specifically on stormwater pollution, which will generate greater collaboration, engagement, coverage and local community relevance in stormwater pollution reduction actions; 3) providing formal training on education, communication and outreach techniques, as well as stormwater issues, research and prevention strategies, to increase professional skills; and, 4) familiarizing and involving local watersheds organizations with the regional Puget Sound Starts Here media campaign and tools by facilitating their immediate use in local stormwater-themed events and activities.	WSU Extension	SSLIO 03.1 & 04.1 & 05.1 & 06.1	Y-New project	FUND 1.1	CHIN 2.5	BIBI 1.1
2018-0599	Farm Plans and CAO Regulatory Flexibility Assessment	During King County's Critical Area Ordinance update process in 2004, the county provided regulatory flexibility to farmers if they get a farm plan from the King Conservation District. The intent was that while the County was giving up certain ecological protections within a specific regulatory area, it would gain more environmentally by having the District engaging with farmers to create individualized plans for how to improve their farms. This flexibility was applied to several regulatory issues like Agricultural Drainage Assistance Program and the Livestock Management Ordinance fencing buffer width requirements. The CAO Best Available Science documented that this flexible approach created high uncertainty about the county's ability to meet a 'no net loss' of ecological functions and values and that it was one of five specific departures from BAS. It also highlighted the need for this approach to be monitored for effectiveness. This has not occurred since the CAO was implemented.	King County	SSLIO 02.1 & 05.1 & 08.1	N-other work funded	CHIN 1.6	CHIN 1.2	BIBI 3.1
2018-0618	Stormwater Assessment, Outreach, and Assistance to Jurisdictions in the Snohomish Basin (WRIA 7)	In coordination with WDFW and NOAA's NW Fisheries Science Center, the project team (King County, the Tulalip Tribes, and others) will conduct fall spawner surveys in prioritized streams near urban lands and roads across the Snohomish basin to determine rates at which adult coho returning to spawn die before spawning due to water pollution (coho urban runoff syndrome, aka pre-spawn mortality (Feist et. al., 2017)). The rates and locations will be used to identify areas for water pollution prevention actions, including stormwater retrofits and green stormwater infrastructure. Results will be shared with stormwater professionals and the public in the jurisdictions where problems are identified, and a suite of assistance will be offered to stormwater managers including grant writing, green stormwater infrastructure design, mapping, or outreach to increase their capacity to install green stormwater infrastructure to address the problem.		SSLIO 04.1 & 05.1 & 06.1	Y-New project	BIBI 2.1	LDC 3.4	BIBI 1.1
2018-0693	Big Buffers on Pilchuck River and French Creek	The Pilchuck River and French Creek once supported highly productive populations of salmon and are critical sub-basins for the recovery of salmon populations in the Snohomish River basin. The Big Buffers project continues implementation of a riparian stewardship Action Plan for the Lower and Middle Pilchuck River and French Creek sub-basins that aims to improve water quality and restore and protect high priority riparian lands. Snohomish Conservation District and partners are implementing reach-scale riparian stewardship actions to restore salmon habitat, protect or create cold water inflows, and enhance hydrologic processes. To achieve salmon recovery targets, the Action Plan identifies 151 acres in the Pilchuck River and 187 acres in the French Creek Implementation Areas of needed riparian reforestation. This NTA will fund planting of wide riparian buffers on easement lands and other priority rural and agricultural lands to make progress on achieving riparian reforestation goals.	Snohomish Conservation	SSLIO 06.1	Y-New project	CHIN 7.1	CHIN 2.5	ВІВІ 3.1
2018-0330	Catchment Wide Ditch Maintenance Retrofit Project	This proposal consists of reviewing outcomes from the first phase of this project, and developing a Quality Assurance Project Plan to study how certain maintenance efforts influence water quality and flow control at a small scale (catchment).  Preliminary work would include finding similar sized catchments with similar surrounding land use and impervious cover, implementing a ditch maintenance regime in each catchment and using remote sensors to measure the influence the maintenance regimes have on peak flows and the transport of sediment.  The outcomes from the study could influence the way capital projects are sized and how much they cost to build.	King County	SSLIO 02.1	N-other work funded	BIBI 5.1		

NTA ID	NTA Title	INTA Description		Sno-Stilly Alignment	Gap (Y/N)	Regional	l Priority /	Approach
2018-0792	Source Identification of Toxics Impacting Juvenile Chinook Salmon in Three Major Puget Sound Rivers	Approximately 30% of all juvenile Chinook salmon recently sampled by WDFW contained levels of contaminants high enough to induce sublethal effects, potentially affecting their marine survival. The implication of these findings is that juvenile Chinook are accumulating sublethal amounts of toxics from urbanized and developing watersheds that have undergone habitat restoration efforts, but continue to receive stormwater and wastewater containing toxic chemicals.  We will resolve sources and pathways of chemicals by measuring polychlorinated biphenyls (PCBs) and polybrominated biphenyl ethers (PBDEs) from water (using passive samplers), sediments, and resident biota (e.g., periphyton and invertebrates). The sampling design will rely on tried-methods to help pinpoint the geographic source of contaminants. Identification of contaminant sources along the salmon's migratory pathway is information necessary to remediate toxic effects on the early marine survival of juvenile Chinook salmon.	Dept. of Ecology	SSLIO 04.1 & 05.1 & 06.1	Y-New project	TIF 1.1	CHIN 4.2	
Regional	Priorities							
2018-0455	Snohomish Watershed Capacity Building for Managing and Implementing Stormwater Pollution Reduction Community- based Programs	Stormwater pollution is contributing to the listing of multiple Snohomish / Snoqualmie Watershed water bodies on the 303d list and affecting Chinook populations. We will achieve the project objective by 1) assessing and refining regionally identified priority stormwater best management practices for local relevance in the target watershed; 2) replicating a smaller version of the Puyallup Watershed Initiative, focused specifically on stormwater pollution, which will generate greater collaboration, engagement, coverage and local community relevance in stormwater pollution reduction actions; 3) providing formal training on education, communication and outreach techniques, as well as stormwater issues, research and prevention strategies, to increase professional skills; and, 4) familiarizing and involving local watersheds organizations with the regional Puget Sound Starts Here media campaign and tools by facilitating their immediate use in local stormwater-themed events and activities.	WSU Extension	SSLIO 03.1 & 04.1 & 05.1 & 06.1	Y-New project	FUND 1.1	CHIN 2.5	BIBI 1.1
	*Denotes multiple Strategic							

Initiative